What is claimed is:

1. An electrochemical cell, which comprises:

a) a negative electrode of an anode material short circuited with an anode active material;

b) a positive electrode of a cathode active material; and

c) a nonaqueous electrolyte activating the negative electrode and the positive electrode.

2. The electrochemical cell of claim 1 wherein the anode active material is selected from Groups IA, IIA and IIIB of the Periodic Tables of the Elements.

3. The electrochemical cell of claim 1 wherein the anode material is selected from the group consisting of a carbonaceous material, SnO, SnO_2, SiO, $SnO(B_2O_3)_x(P_2O_5)_y$, V_2O_5, SVO, CSVO, MnO_2, TiS_2, CuO_2, Cu_2S, FeS, FeS_2, CF_x, Ag_2O, Ag_2O_2, CuF, Ag_2CrO_4, copper oxide, copper vanadium oxide, and mixtures thereof.

4. The electrochemical cell of claim 3 wherein the carbonaceous material is selected from the group consisting of coke, graphite, acetylene black, carbon black, glassy carbon, hairy carbon, hard carbon, and mixtures thereof.

5. The electrochemical cell of claim 1 wherein the negative electrode has the configuration: first anode material/current collector/alkali metal/current collector/second anode material, wherein the first and second anode materials are capable of intercalating and de-intercalating the alkali metal and are the same or

different.

6. The electrochemical cell of claim 1 wherein the negative electrode has the configuration: first anode material/current collector/second anode material/alkali metal/third anode material/current collector/fourth anode material, wherein the first, second, third and fourth anode materials are capable of intercalating and de-intercalating the alkali metal and are either the same or different.

7. The electrochemical cell of claim 1 wherein the negative electrode has the configuration: anode material/current collector/alkali metal, wherein the anode material is capable of intercalating and de-intercalating the alkali metal.

8. The electrochemical cell of claim 5 wherein the anode material faces the positive electrode.

9. The electrochemical cell of claim 1 wherein the anode material is hard carbon and the negative electrode has the configuration: hard carbon/current collector/lithium/current collector/hard carbon.

10. The electrochemical cell of claim 1 wherein the anode material is hard carbon and the negative electrode has the configuration: hard carbon/current collector/lithium, with the hard carbon facing the positive electrode.

11. The electrochemical cell of claim 1 wherein the anode material is hard carbon and the negative electrode has the configuration: hard carbon/current

collector/hard carbon/lithium/hard carbon/current collector/hard carbon.

12. The electrochemical cell of claim 1 wherein the anode material is a carbonaceous material and the negative electrode has the configuration: carbonaceous material/current collector/lithium/current collector/carbonaceous material.

13. The electrochemical cell of claim 1 wherein the cathode active material is selected from the group consisting of $Li_xTi_5O_{12}$ (x = 4 to 7), $Li_{3-x}M_xN$ (M = Co, Ni; x = 0.1 to 0.6), $LiNiO_2$, $LiMn_2O_4$, $LiMnO_2$, LiV_2O_5, $LiCoO_2$, $LiCo_{0.92}Sn_{0.08}O_2$, $LiCo_{1-x}Ni_xO_2$, SVO, CSVO, V_2O_5, MnO_2, CuO_2, TiS_2, Cu_2S, FeS, FeS_2, copper oxide, copper vanadium oxide, CF_x, Ag_2O, Ag_2O_2, CuF, Ag_2CrO_4, and mixtures thereof.

14. The electrochemical cell of claim 1 wherein the positive electrode includes non-active materials selected from a binder material and a conductive additive.

15. The electrochemical cell of claim 14 wherein the binder material is a fluoro-resin powder.

16. The electrochemical cell of claim 14 wherein the conductive additive is selected from the group consisting of carbon, graphite powder, acetylene black, titanium powder, aluminum powder, nickel powder, stainless steel powder, and mixtures thereof.

17. An electrochemical cell, which comprises:

a) a positive electrode of a cathode active

material;

b) a negative electrode of an anode material and an alkali metal, wherein the alkali metal has spaced apart first and second major sides with at least one current collector contacting at least one of the first and second major sides and wherein the anode material is contacted to the at least one current collector opposite the alkali metal and facing the positive electrode, and wherein the anode material is capable of intercalating and de-intercalating the alkali metal; and

c) a nonaqueous electrolyte activating the negative electrode and the positive electrode.

18. The electrochemical cell of claim 17 wherein the negative electrode comprises first and second current collectors and has the configuration: first anode material/first current collector/alkali metal/second current collector/second anode material, wherein the first and second anode materials are capable of intercalating and de-intercalating the alkali metal and are the same or different.

19. The electrochemical cell of claim 17 wherein the anode material is a carbonaceous material and the negative electrode comprises first and second current collectors and has the configuration: carbonaceous material/first current collector/lithium/second current collector/carbonaceous material.

20. The electrochemical cell of claim 17 wherein the anode material is hard carbon and the negative electrode comprises first and second current collectors and has the configuration: hard carbon/first current

collector/lithium/second current collector/hard carbon.

21. The electrochemical cell of claim 17 wherein the current collector is selected from the group consisting of copper, stainless steel, titanium, tantalum, platinum, gold, aluminum, cobalt nickel alloys, highly alloyed ferritic stainless steel containing molybdenum and chromium, and nickel-, chromium-, and molybdenum-containing alloy.

22. The electrochemical cell of claim 17 wherein the electrolyte has a first solvent selected from an ester, a linear ether, a cyclic ether, a dialkyl carbonate, and mixtures thereof, and a second solvent selected from a cyclic carbonate, a cyclic ester, a cyclic amide, and mixtures thereof.

23. The electrochemical cell of claim 22 wherein the first solvent is selected from the group consisting of tetrahydrofuran (THF), methyl acetate (MA), diglyme, trigylme, tetragylme, dimethyl carbonate (DMC), 1,2-dimethoxyethane (DME), 1,2-diethoxyethane (DEE), 1-ethoxy,2-methoxyethane (EME), ethyl methyl carbonate, methyl propyl carbonate, ethyl propyl carbonate, diethyl carbonate, dipropyl carbonate, and mixtures thereof, and the second solvent is selected from the group consisting of propylene carbonate (PC), ethylene carbonate (EC), butylene carbonate, acetonitrile, dimethyl sulfoxide, dimethyl formamide, dimethyl acetamide, γ-valerolactone, γ-butyrolactone (GBL), N-methyl-pyrrolidinone (NMP), and mixtures thereof.

24. The electrochemical cell of claim 17 wherein the electrolyte includes a lithium salt selected from the group consisting of $LiPF_6$, $LiBF_4$, $LiAsF_6$, $LiSbF_6$, $LiClO_4$, LiO_2, $LiAlCl_4$, $LiGaCl_4$, $LiC(SO_2CF_3)_3$, $LiN(SO_2CF_3)_2$, LiSCN, LiO_3SCF_3, $LiC_6F_5SO_3$, LiO_2CCF_3, $LiSO_6F$, $LiB(C_6H_5)_4$, $LiCF_3SO_3$, and mixtures thereof.

25. The electrochemical cell of claim 17 wherein the electrolyte is 0.8M to 1.5M $LiAsF_6$ or $LiPF_6$ dissolved in a 50:50 mixture, by volume, of propylene carbonate and 1,2-dimethoxyethane.

26. An electrochemical cell, which comprises:

a) a positive electrode of a cathode active material;

b) a negative electrode of an anode material contacted to one side of a current collector with an alkali metal positioned on the opposite side of the current collector, wherein the anode material faces the positive electrode and is capable of intercalating and de-intercalating the alkali metal; and

c) a nonaqueous electrolyte activating the negative electrode and the positive electrode.

27. The electrochemical cell of claim 26 wherein the anode material is hard carbon and the negative electrode has the configuration: hard carbon/current collector/lithium, and wherein the hard carbon faces the positive electrode.

28. The electrochemical cell of claim 26 wherein the anode material is a carbonaceous material and the negative electrode has the configuration: carbonaceous

material/current collector/lithium, and wherein the carbonaceous material faces the positive electrode.

29. The electrochemical cell of claim 26 wherein the anode material is selected from the group consisting of SnO, SnO_2, SiO, $SnO(B_2O_3)_x(P_2O_5)_y$, a carbonaceous material, SVO, CSVO, V_2O_5, MnO_2, CuO_2, TiS_2, Cu_2S, FeS, FeS_2, copper oxide, copper vanadium oxide, CF_x, Ag_2O, Ag_2O_2, CuF, Ag_2CrO_4, and mixtures thereof.

30. An electrochemical cell, which comprises:

a) a positive electrode of a cathode active material;

b) a negative electrode of an alkali metal sandwiched between a first and second current collectors with an anode material selected from the group consisting of SnO, SnO_2, SiO, $SnO(B_2O_3)_x(P_2O_5)_y$, a carbonaceous material, V_2O_5, SVO, CSVO, MnO_2, TiS_2, CuO_2, Cu_2S, FeS, FeS_2, CF_x, Ag_2O, Ag_2O_2, CuF, Ag_2CrO_4, copper oxide, copper vanadium oxide, and mixtures thereof, contacted to at least one of the first and second current collectors opposite the alkali metal and facing the positive electrode; and

c) a nonaqueous electrolyte activating the negative electrode and the positive electrode.

31. A method for providing an electrochemical cell, comprising the steps of:

a) providing a positive electrode of a cathode active material;

b) providing a negative electrode of an alkali metal short circuited with an anode material; and

c) activating the negative electrode and the

positive electrode with a nonaqueous electrolyte.

32. The method of claim 31 including providing the negative electrode having the configuration: first anode material/current collector/alkali metal/current collector/second anode material, wherein the first and second anode materials are capable of intercalating and de-intercalating the alkali metal and are the same or different.

33. The method of claim 31 including providing the negative electrode having the configuration: first anode material/current collector/second anode material/alkali metal/third anode material/current collector/fourth anode material, wherein the first, second, third and fourth anode materials are capable of intercalating and de-intercalating the alkali metal and are either the same or different.

34. The method of claim 31 including providing the negative electrode having the configuration: anode material/current collector/alkali metal, wherein the anode material is capable of intercalating and de-intercalating the alkali metal and faces the positive electrode.

35. The method of claim 31 including providing the anode material as hard carbon with the negative electrode having the configuration: hard carbon/current collector/lithium/current collector/hard carbon.

36. The method of claim 31 including providing the anode material as a carbonaceous material with the negative electrode having the configuration: carbonaceous material/current collector/lithium, with the carbonaceous material facing the positive electrode.

37. The method of claim 31 including providing the anode material as a carbonaceous material with the negative electrode having the configuration: carbonaceous material/current collector/lithium/current collector/carbonaceous material.

38. The method of claim 31 including selecting the anode material from the group consisting of SnO, SnO_2, SiO, $SnO(B_2O_3)_x(P_2O_5)_y$, a carbonaceous material, V_2O_5, SVO, CSVO, MnO_2, TiS_2, CuO_2, Cu_2S, FeS, FeS_2, CF_x, Ag_2O, Ag_2O_2, CuF, Ag_2CrO_4, copper oxide, copper vanadium oxide, and mixtures thereof.

39. The method of claim 38 including selecting the carbonaceous material from the group consisting of coke, graphite, acetylene black, carbon black, glassy carbon, hairy carbon, hard carbon, and mixtures thereof.